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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/015,985	11/02/2001	Richard H. Garrett	FCI-2648/C3193	3493

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EXAMINER

JONES, STEPHEN E

ART UNIT	PAPER NUMBER
2817	

DATE MAILED: 06/11/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.	Applicant(s)
10/015,985	GARRETT ET AL.
Examiner	Art Unit
Stephen E. Jones	2817

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(h).

Status

1) Responsive to communication(s) filed on 29 May 2003 .

2a) This action is **FINAL**. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213
suspension of Claims.

Disposition of Claims

4) Claim(s) 1-11 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) Claim(s) _____ is/are allowed.
6) Claim(s) 1-6 and 8-11 is/are rejected.
7) Claim(s) 7 is/are objected to.
8) Claim(s) _____ are subject to restriction and/or election requirement.
Application No. _____

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) The proposed drawing correction filed on _____ is: a) approved b) disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.

12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) All b) Some * c) None of:
1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received

* See the attached detailed Office action for a list of the certified copies not received.

14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) The translation of the foreign language provisional application has been received.
15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____

4) Interview Summary (PTO-413) Paper No(s). ____ .
5) Notice of Informal Patent Application (PTO-152)
6) Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims 1-4 and 10-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Devaux et al. (of record).

Devaux et al. teaches a transmission line strip which is surrounded by air. The line (i.e. a high speed interconnection system) is supported by dielectric support sections (2) (Claim 4). A ground plate backplane (3, 4) is provided at the top and bottom (Claim 3). The line has minimized disturbance of propagation (i.e. it is impedance matched since reflections, which are a result of impedance mismatch, are a

type of disturbance which is associated with transmission lines, and Devaux is teaching minimizing disturbance) (see Col. 1, lines 32-37) (Claim 2).

However, Devaux does not explicitly teach that the structure includes a plurality of transmission lines (Claims 1 and 11), or that the conductors are round cross section (Claim 10).

It would have been considered obvious to one of ordinary skill in the art to have provided a plurality of the transmission lines in the Devaux structure, because it would have provided the advantageous benefit of interconnections for a pre-selected quantity of devices or additional devices. Also, it would have been considered obvious to one of ordinary skill in the art to have modified the Devaux transmission line to have been of a round cross section such as a wire, because it would have provided a well-known art-recognized equivalent conductive transmission line means.

4. Claims 5-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Devaux et al. (of record) in view of Perez (of record).

Devaux teaches a transmission structure as described above.

However, Devaux does not explicitly teach that the structure has a housing (Claim 5) including a base and a cover (Claim 6).

Perez (Fig. 2) teaches a housing having a base and a cover.

It would have been considered obvious to one of ordinary skill in the art to have included a housing including a cover and base such as taught by Perez in the Devaux structure, because it would have provided the advantageous benefit of electrical

isolation of the transmission line system, thereby suggesting the obviousness of such a modification.

5. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Devaux et al. (of record) in view of Lao et al. (of record).

Devaux teaches a transmission structure as described above.

However, Devaux does not explicitly teach that the transmission lines have signal tabs on their ends for connecting to a system.

Lao et al. (Fig. 11) teaches a transmission line (52) which has a tab part for connecting to a connector.

It would have been considered obvious to one of ordinary skill in the art to have modified the Devaux transmission lines to have included tabs on their ends such as taught by Lao et al., because it would have provided the advantageous benefit of connector contact areas for connecting to a device system.

6. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Devaux et al. in view of Perez and Palinkas (all of record).

Devaux et al. teaches a transmission line system as described above.

However, Devaux does not explicitly teach how the ground planes are connected to a ground.

Perez teaches a housing as described above.

Palinkas teaches connecting a ground plane to a housing by solder (see Col. 3, lines 55-56).

It would have been considered obvious to one of ordinary skill in the art to have provided a housing and cover such as taught by Perez with the Devaux structure (combination described above in a previous rejection) and to have used solder points (i.e. tabs), such as taught by Palinkas, to have joined the ground plane of the Devaux structure to the conductive housing in the combination structure of Devaux and Perez, because it would have provided a well-known means for connecting the ground plane to the grounded housing in a conductive manner to effectively form the necessary common ground reference between the housing and the ground planes, thereby suggesting the obviousness of such a modification.

Response to Arguments

7. Applicant's arguments filed 5/29/03 have been fully considered but they are not persuasive.

Regarding Claims 1 and 11, Applicant argues that Devaux does not teach that the transmission line is impedance matched and that Devaux is only concerned with disturbances of a mechanical nature.

The examiner disagrees with applicant. A fair reading of the reference would imply that the transmission line is indeed impedance matched since Devaux clearly refers to the impedance of the line and disturbance of propagation in the transmission line as well as mechanical disturbances. If reflections (a form of disturbance in transmission lines) caused by impedance mismatch were present in the Devaux device, the Devaux device then would not meet the criteria of minimizing disturbance of propagation as taught by Devaux (e.g. see Col. 1, lines 33-37).

Regarding Claim 2, Applicant argues that Devaux does not teach that the distance between the ground planes and the transmission line is related to the impedance of the system.

Applicant's argument is not persuasive. As is conventional when referring to transmission lines, the characteristic impedance is directly related to the conductive transmission line and its distance from its ground planes. Since Devaux teaches impedance matching as discussed above, clearly it is implied that the distance to the ground planes is a pre-determined distance to provide the impedance match.

Allowable Subject Matter

8. Claim 7 remains objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen E. Jones whose telephone number is 703-305-0390. The examiner can normally be reached on Monday through Friday from 8 AM to 4 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert J. Pascal can be reached on 703-308-4909. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-6251 for regular communications and 703-308-6251 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

SEJ
June 9, 2003


Robert Pascal
Supervisory Patent Examiner
Technician, Group 2